STRUCTURAL PAINTS

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Structural paints have come under continual observations during the past several years. Repainting is an appreciable economic burden in the overall maintenance of steel bridges. Numerous factors may lead to premature failure of paint systems. Preparation of the metal prior to painting has recently come under consideration. As a result, blast cleaning to bright metal in accordance with requirements and photographic standards of the Steel Structures Painting Council is now required. For expediency, fast-drying paints are now more widely used; and the new systems are designed to minimize problems of adhesion between various coatings. These paints are oil-alkyds; they provide excellent protection of steel under ordinary conditions. They do not perform well where moisture persists. Chlorinated rubber or vinyl paints may eventually be adapted for use in splash zones and where moisture persists. In the interim, spot-painting may be needed in critical areas. Four coats are being required on all new steel.

Brush-off blast cleaning of rust and unsound paint is being required preparatory to re-painting. One or more primer coats may be specified to re-build the film over exposed steel; one or more finish coats may be specified throughout or within spot-worked areas.

Figure 36. Weathered, Rusted Steel Showing Remnants of Mill Scale -- Cleaning to Bright Metal before Painting Is Considered Good Practice

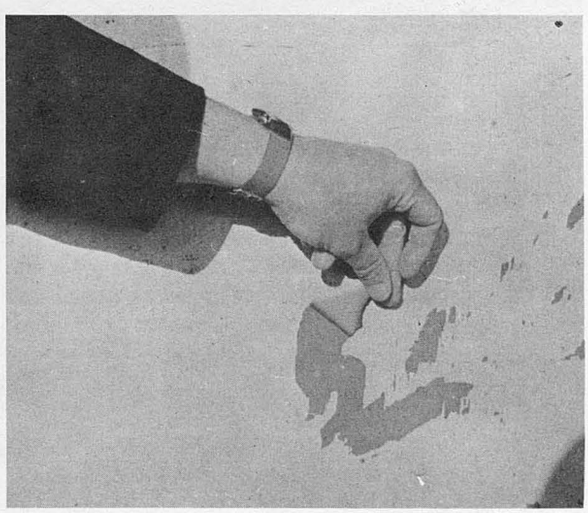

Figure 37. Peeling of Outer Paint Film from Undercoat Illustrates a Problem of Low Adhesion between Coats of Paint